

PERFORMANCE ASSESSMENT OF DATA CLASSIFIERSFIELD OF THE INVENTION

5 The present invention relates to methods and
apparatus for assessing the performance of data
classifiers, such as neural networks. One specific
field of application is that of training and assessing
the performance of data classifiers to be used for
10 fraud detection including, in particular,
telecommunications fraud.

BACKGROUND TO THE INVENTION

15 Data classifiers such as neural networks
typically operate by generating an element of output
data in response to an element of input data. Such a
data classifier may be constructed or trained using a
training set of input and output data elements in such
a way that not only is the data classifier able to
20 reproduce, as accurately as possible, each element of
output training data in response to each corresponding
element of input training data, but it is also able to
generate suitable elements of output data in response
to new input data elements in a plausible and useful
25 manner. Neural networks achieve this behaviour
through the training of a plurality of interlinked
neural nodes, usually constructed in software, but
other schemes are known.

30 Data classifiers such as neural networks are
commonly used in the detection of patterns or
anomalies within large data sets. A particular
application is that of detecting fraudulent activity
35 on telecommunications networks, such as illicit
emulation of a legitimate mobile telephone through

*Other for the subject matter filed 2-19-04
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